AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A reconfigurable organic light-emitting device, comprising:

at least two organic light-emitting layers; and

at least one high-energy-gap carrier-blocking layer, formed between each of the organic light-emitting layers;

wherein the organic light-emitting layers and the ~~high-energy-gap~~high-energy-gap carrier-blocking layer can be heated to induce the inter-diffusion process, so as to change the structure of the reconfigurable organic light-emitting device ~~to~~and emit light of different spectra in different structures.

2. (Currently Amended) The organic light-emitting device as recited in claim 1, further comprising an upper electrode and a lower electrode sandwiching the organic light-emitting layers and the high-energy-gap carrier-blocking layer. ~~By~~, wherein by applying a bias voltage thereon, the reconfigurable organic light-emitting device may emit lights.

3. (Currently Amended) The organic light-emitting device as recited in claim 2, further comprising a light-to-heat conversion layer adjacent to at least one of the organic light-emitting layers, wherein by shining a light-beam thereon, the reconfigurable organic light-emitting device may be heated.

4. (Currently Amended) The organic light-emitting device as recited in claim 2, further comprising a built-in resistive heating electrode adjacent to at least one of the organic light-

emitting layers, wherein by applying a current thereon, the reconfigurable organic light-emitting device may be heated.

5. (Currently Amended) The organic light-emitting device as recited in claim 2, further comprising an external heating source adjacent to at least one of the organic light-emitting layers.

6. (Original) The organic light-emitting device as recited in claim 5, wherein the external heating source is a patterned resistive heating electrode, wherein by applying a current thereon, the reconfigurable organic light-emitting device may be heated.

7. (Original) The organic light-emitting device as recited in claim 4, wherein the built-in resistive heating electrode is a patterned resistive conductor.

8. (Original) The organic light-emitting device as recited in claim 3, wherein the light-beam is a laser beam.

9. (Currently Amended) The organic light-emitting device as recited in claim 1, wherein ~~each of the high-energy-gap carrier-blocking layer has a different glass transition temperature, and the~~ a glass transition ~~temperatures~~ temperature of the high-energy-gap carrier-blocking layer ~~are~~ is smaller than the glass transition temperatures of the organic light-emitting layers.

10. (Original) The organic light-emitting device as recited in claim 1, wherein the emission spectrum of the reconfigurable organic light-emitting device is one of the characteristic spectra of the at least two organic light-emitting layers, and when the structure of the reconfigurable organic light-emitting device is changed, the emission spectrum of the reconfigurable organic light-emitting device changes from the characteristic spectrum of one layer of the at least two organic light-emitting layers to that of another layer of the at least two organic light-emitting layers.

11. (Currently Amended) A display apparatus employing ~~the~~ an organic light-emitting device, comprising:

a lower electrode;

a ~~layers~~ layer of ~~the~~ a reconfigurable light-emitting device formed on the lower electrode[[:]]; and

an upper electrode formed on the layer of the reconfigurable light-emitting device; the structure of the reconfigurable organic light-emitting layer being locally reconfigured via a patterned heating source, and by applying a bias voltage between the upper electrode and the lower electrode, light of different spectra in different structures being emitted.

12. (Original) The display apparatus as recited in claim 11, wherein the layers of the reconfigurable organic light-emitting device further comprises: at least two organic light-emitting layers; and at least one high-energy-gap carrier-blocking layer, formed between each of the organic light-emitting layers.

13. (Currently Amended) The display apparatus as recited in claim 12, wherein ~~each of the high-energy-gap carrier-blocking layer has a different glass transition temperature, and the~~ a glass transition ~~temperatures~~ temperature of the high-energy-gap carrier-blocking ~~layers are~~ layer is smaller than the glass transition temperatures of the organic light-emitting layers.

14. (Currently Amended) The display apparatus as recited in claim 12, wherein the emission spectrum of the reconfigurable organic light-emitting device is one of the characteristic spectra of the at least two organic light-emitting layers, and the emission spectrum of the reconfigurable organic light-emitting device is changed from the characteristic spectrum of one layer of the at least two organic light-emitting layers to another layer of the at least two organic light-emitting layers when the reconfigurable organic light-emitting device changes its structure.

15. (Currently Amended) The display apparatus as recited in claim 11, further comprising a light-to-heat conversion layer adjacent to at least one of the organic light-emitting layers, wherein by shining a light-beam thereon, the reconfigurable organic light-emitting device may be heated.

16. (Currently Amended) The display apparatus as recited in claim 11, further comprising an external heating source adjacent to at least one of the organic light-emitting layers, by which the reconfigurable organic light-emitting device may be heated.

17. (Currently Amended) The display apparatus as recited in claim 11, further comprising a built-in resistive heating electrode adjacent to at least one of the organic light-emitting layers, wherein by applying a current thereon, the reconfigurable organic light-emitting device may be heated.

18. (Original) The display apparatus as recited in claim 17, wherein the lower electrode may be used on the built-in resistive heating electrode

19. (Original) The display apparatus as recited in claim 11, wherein the bias voltage applied between the upper electrode and the lower electrode is within the range of 2 volts to 15 volts.

20. (Currently Amended) A display apparatus employing ~~the~~an organic light-emitting device, comprising:

a substrate;

a lower electrode formed on the substrate;

an insulating layer formed on the lower electrode;

an upper electrode separating island formed on the insulating layer;

a layer of a reconfigurable organic light-emitting device formed on the lower electrode, the insulating layer, and the upper electrode separating island; and

an upper electrode formed on the layer of the reconfigurable organic light-emitting device; wherein the structure of the layer of the reconfigurable organic light-emitting device can

be reconfigured via a patterned heating source, and by applying a bias voltage between the upper electrode and the lower electrode, light of different spectra in different structures can be emitted.

21. (Original) The display apparatus as recited in claim 20, wherein the layer of the reconfigurable organic light-emitting device further comprises: at least two organic light-emitting layers; and at least one high-energy gap carrier-blocking layer, formed between each of the organic light-emitting layers.

22. (Currently Amended) The display apparatus as recited in claim 21, wherein ~~each of the high-energy-gap carrier-blocking layer has a different glass transition temperature, and the~~ a glass transition ~~temperatures~~ temperature of the high-energy-gap carrier-blocking ~~layers are~~ layer is smaller than the glass transition temperatures of the organic light-emitting layers.

23. (Currently Amended) The display apparatus as recited in claim 21, wherein the emission spectrum of the reconfigurable organic light-emitting device is one of the characteristic spectra of the at least two organic light-emitting layers, and the emission spectrum of the reconfigurable organic light-emitting device is changed from the characteristic spectrum of one layer of the at least two organic light-emitting layers to that of another layer of the at least two organic light-emitting layers when the reconfigurable organic light-emitting device changes its structure.

24. (Currently Amended)The display apparatus as recited in claim ~~20~~21, further comprising a light-to-heat conversion layer adjacent to at least one of the organic light-emitting layers, wherein by shining a light-beam thereon, the reconfigurable organic light-emitting device may be heated.

25. (Original) The display apparatus as recited in claim 24, wherein the light-beam is a laser beam.

26. (Original) The display apparatus as recited in claim 24, wherein the light-to-heat conversion layer is any one of the upper electrode and the lower electrode.

27. (Original) The display apparatus as recited in claim 24, wherein the light-to-heat conversion layer is formed outside of the upper electrode and the lower electrode.

28. (Original) The display apparatus as recited in claim 24, wherein the light-to-heat conversion layer is formed between the upper electrode and the lower electrode.

29. (Currently Amended) The display apparatus as recited in claim ~~20~~21, further comprising a built-in resistive heating electrode adjacent to at least one of the organic light-emitting layers, wherein by applying a current thereon, the reconfigurable organic light-emitting device may be heated.

30. (Original) The display apparatus as recited in claim 29, wherein the built-in resistive heating electrode is a layer of patterned resistive conductor.

31. (Original) The display apparatus as recited in claim 30, wherein the layer of patterned resistive conductor is any one of the upper electrode and the lower electrode.

32. (Original) The display apparatus as recited in claim 30, wherein the layer of patterned resistive conductor is formed outside of the upper electrode and the lower electrode.

33. (Currently Amended) The display apparatus as recited in claim 24, further comprising an external heating source adjacent to at least one of the organic light-emitting layers.

34. (Original) The display apparatus of claim 33, wherein the external heating source is a layer of patterned resistive conductor, wherein by applying a current thereon, the reconfigurable organic light-emitting device may be heated.

35. (Original) The display apparatus as recited in claim 20, wherein the upper electrode and the lower electrode by vertically cross each other.

36. (Currently Amended) A display apparatus employing ~~the~~an organic light-emitting device, comprising:

a substrate;

a lower electrode formed on the substrate;

an insulating layer formed on the lower electrode;

a layer of a reconfigurable organic light-emitting device formed on the lower electrode and the insulating layer;

an upper electrode formed on the layer of the reconfigurable organic light-emitting device; and

a transistor circuit electrically connected with the upper electrode and the lower electrode; wherein the structure of the layer of the reconfigurable organic light-emitting device is reconfigured via a patterned heating source, and by applying a bias voltage between the upper electrode and the lower electrode, controlled by the transistor circuit, light of different spectra in different structures is emitted.

37. (Currently Amended) The display apparatus as recited in claim 36, wherein the layer of the reconfigurable organic light-emitting device further comprising:

at least two organic light-emitting layers; and

at least one high-energy-gap carrier-blocking layer, formed between each of the organic light-emitting ~~layer~~ layers.

38. (Currently Amended) The display apparatus as recited in claim 37, wherein ~~each of the high-energy-gap carrier-blocking layer has a different glass transition temperature, and the~~ a glass transition ~~temperatures~~ temperature of the high-energy-gap carrier-blocking ~~layers are~~ layer is smaller than the glass transition temperatures of the organic light-emitting layers.

39. (Currently Amended) The display apparatus as recited in claim 37, wherein the emission spectrum of the reconfigurable organic light-emitting device is one of the characteristic spectra of the at least two organic light-emitting layers, and the emission spectrum of the reconfigurable organic light-emitting device is changed from the characteristic spectrum of one layer of the at least two organic light-emitting layers to that of another layer of the at least two organic light-emitting layers when the reconfigurable organic light-emitting device changes its structure.

40. (Currently Amended) The display apparatus as recited in claim 37, further comprising a light-to-heat conversion layer adjacent to at least one of the organic light-emitting layers, wherein by shining a light-beam thereon, the reconfigurable organic light-emitting device may be heated.

41. (Original) The display apparatus as recited in claim 40, wherein the light-beam is a laser beam.

42. (Original) The display apparatus as recited in claim 40, wherein the light-to-heat conversion layer is any one of the upper electrode and the lower electrode.

43. (Original) The display apparatus as recited in claim 40, wherein the light-to-heat conversion layer is formed outside of the upper electrode and the lower electrode.

44. (Original) The display apparatus as recited in claim 40, wherein the light-to-heat conversion layer is formed between the upper electrode and the lower electrode.

45. (Currently Amended) The display apparatus as recited in claim 37, further comprising a built-in resistive heating electrode adjacent to at least one of the organic light-emitting layers, wherein by applying a current thereon, the reconfigurable organic light-emitting device may be heated.

46. (Currently Amended) The display apparatus as recited in claim ~~37~~45, wherein the built-in resistive heating electrode is a layer of patterned resistive conductor.

47. (Original) The display apparatus as recited in claim 46, wherein the layer of patterned resistive conductor is outside of the lower electrode.

48. (Currently Amended) The display apparatus as recited in claim 37, further comprising an external heating source adjacent to at least one of the organic light-emitting layers.